



COUNCIL AGENDA: 06-15-04

ITEM:

Memorandum

TO: HONORABLE MAYOR AND
CITY COUNCIL

FROM: Katy Allen
Stephen M. Haase

SUBJECT: SEE BELOW

DATE: 05-24-04

Approved

Date

Council District: Citywide

SUBJECT: FIRST AMENDMENT TO THE AGREEMENT WITH MRF GEOSYSTEMS CORPORATION FOR ADJUSTMENTS TO GEOGRAPHIC INFORMATION SYSTEM MAPPING

RECOMMENDATION

Approval of the first amendment to the agreement with MRF Geosystems Corporation for consultant services for a Spatial Adjustment of Street Centerline, Parcel and Other Geographic Information Systems Layers Project, increasing compensation by \$331,400, from \$660,000 to \$991,400, and extending the term of the agreement to December 30, 2005.

CEQA: Not a project.

BACKGROUND

On June 17, 2003, the City Council approved an agreement with MRF Geosystems Corporation (MRF) to horizontally adjust street centerline, parcel and other Geographic Information Systems (GIS) layers in the amount of \$660,000. All street centerline deliverables were completed in a timely manner by MRF and this phase is now complete. Work has started on the parcel adjustment phase.

The amended scope includes GIS layers that depict sanitary sewer, municipal water facilities and planning (general plan and zoning) areas. These layers were addressed in the original Request For Proposal and Council memo but were not included in the original scope due to a need to further define the scope of work and identify funding sources.

The Department of Public Works developed the City's GIS basemap from a PG&E map obtained during the late 1970's. All other GIS layers have been created using this basemap. The basemap and layers were initially created to provide a general representation of the City and its infrastructure. Map making technology and other software applications employed by the City

during that time did not require the same precision as today's GIS. There was no survey control to constrain the actual length or direction of the lines or the position of points representing the features depicted on the basemap and layers. Examples of features are street centerlines, manholes, valves, and parcel boundaries. Through an accumulation of errors, which vary from point to point, the geographic coordinates of most features have been depicted anywhere from 50 to 800 feet from their true position. To improve the positional accuracy of City's maps, the graphical representation of each feature can be adjusted to match its corresponding position on available digital ortho-photos to attain a horizontal accuracy of +/-2 feet on the valley floor and +/-5 feet on hilly areas.

Public Works maintains the basemap (parcel, street centerline and right-of-way), sanitary, storm, water, streetlight and bridge systems. The basemap layers are currently used to support the City's on-line permit system and other departments' mapping needs. These needs include support for planning, engineering, inspection, maintenance and emergency response activities as diverse as site selection, crew dispatch, street sweeping and garbage collection route optimization, and vehicle location. Public Safety staff is including the newly adjusted street centerline layer and updated data in their new Computer Aided Dispatch application.

Planning, Building and Code Enforcement (PBCE) creates and maintains GIS data used for a variety of purposes, including support of the City's on-line permit system. The adjustment of the General Plan and Zoning map layers is important for the efficient provision of accurate land use and property development information to staff, applicants and other customers. Map lines and points must properly align with basemap features for search, display and automated entry into the on-line permit database.

When adjusted, the GIS layers will become an integral tool for all City staff. The project also supports the enterprise (citywide) application needs and the proposed regional GIS implementation program being pursued by the City of San José, the County of Santa Clara and the Santa Clara Valley Water District. When completed, City's basemap and layers will fit into a regional map that will facilitate data sharing and reduce duplication throughout the County.

ANALYSIS

Street centerline tasks were delayed by a consultant's (engaged through a separate agreement) extended Quality Control review of project deliverables. After City staff's attempt to expedite this review failed, this other consultant was notified that its services were no longer needed. City staff assumed the additional workload, and this phase was completed four months after the agreement's first phase schedule date. As a result, this amendment includes a new start date for the second phase of work.

The first amendment to the agreement is being recommended to Council for approval in order to accommodate the additional layers that were described in the previous memo as the Potential Future Tasks, detailed below.

Future Tasks

- Spatial adjustment and relational enhancement of other critical GIS layers using ortho-rectified photos and the adjusted street centerline and parcel layers. Examples of these layers would include sanitary, water, zoning and general plan.
- Development of special software that supports maintenance of these GIS layers.

PUBLIC OUTREACH

Not applicable.

COORDINATION

The first amendment to the agreement for this project has been coordinated with the Departments of Finance, Transportation, Environmental Services, Planning, Building and Code Enforcement, Information Technology, the City Manager's Budget Office and City Attorney's Office. On April 17, 2003, a business case for this project was approved by the Information Technology Planning Board (ITPB).

COST IMPLICATIONS

1. AMOUNT OF RECOMMENDATION: \$331,400
2. COST OF AGREEMENT:

Agreement – Street Centerline Task	\$235,000
Agreement – Parcel and Other Basemap Tasks	425,000
First Amendment to the Agreement	<u>331,400</u>
Total	\$991,400
3. SOURCES OF FUNDING:

Street Centerline Task –	001 - General Fund
Parcel and Other Basemap Tasks –	465 - Construction Excise Tax Fund
First Amendment to the Agreement–	545 - Sewer Service and Use Charge Capital Improvement Fund
	500 - Water Utility Capital Fund
	001 – General Fund
4. FISCAL IMPACT: This project is consistent with the Council-approved Budget Strategy General Principles section in that it will streamline operations and implement cost saving innovations while supporting vital public safety services. The proposed operating and

maintenance costs of this project have been reviewed, and it has been determined that the project will have no significant adverse impact on the General Fund operating budget.

BUDGET REFERENCE

Fund #	Appn #	Appn Name	RC #	Total Appn	Amt. For Contract	Adopted Budget Page	Last Budget Action (Date, Ord. No.)
545	6444	Infiltration Reduction	131081	\$2,700,000	\$193,750	2003-04 Adopted Capital Budget Page 146	07/01/2003 Ordinance No. 26916
500	4737	Utility Management System Enhancements	128579	200,000	68,250	2003-04 Adopted Capital Budget Page 247	07/01/2003 Ordinance No. 26916
001	0582	PBCE Non-Personal	580995	2,799,843	50,000	2003-04 Adopted Operating Budget Page 479	02/17/2004 Ordinance No. 27074
001	3195	Geographic Information System Basemap	938334	19,400	19,400	Prior Year Encumbrance	Prior Year Encumbrance
		Total			\$331,400		

CEQA

Not a project.

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